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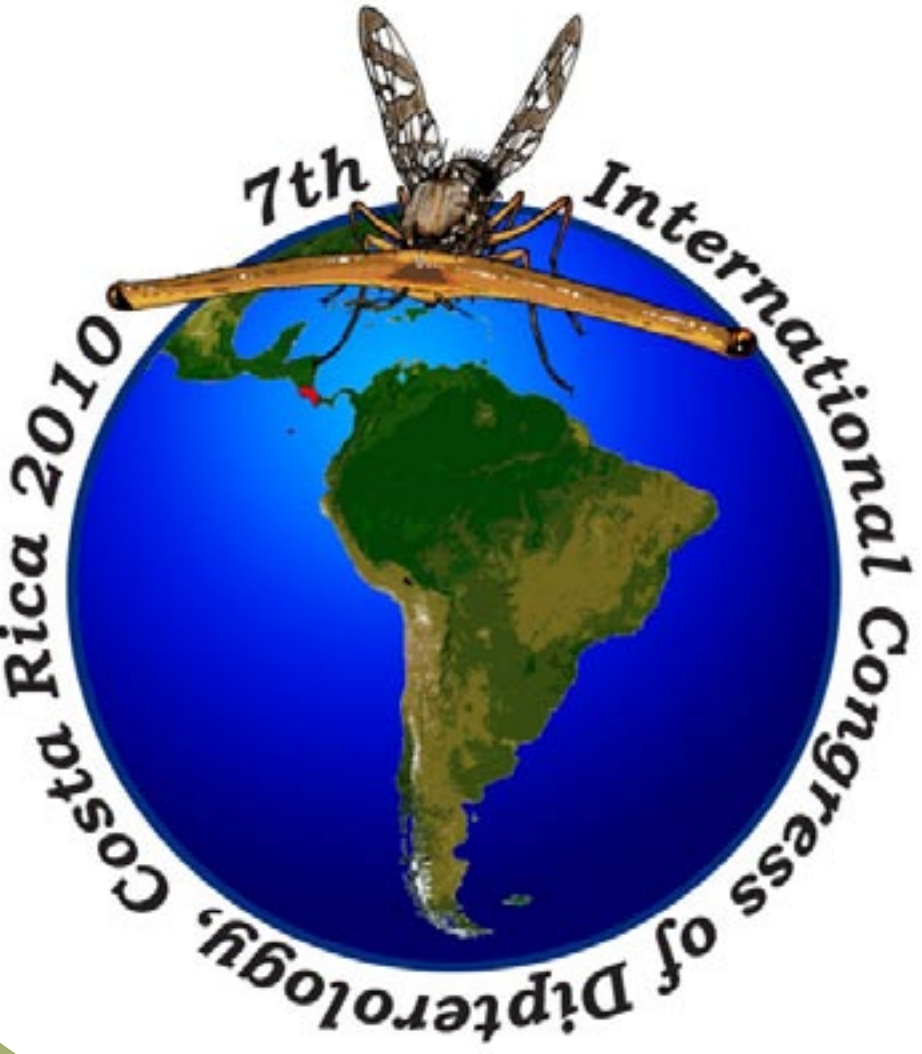
ABSTRACTS VOLUME



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Phylogeny of the genus *Peckia* Robineau-Desvoidy (Diptera: Sarcophagidae)

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A phylogenetic analysis of the genus *Peckia* designed to test its monophyly and the status and relationship of its subgenera is conducted. Male genitalic characters combined with other morphological characters systematized in the DELTA program were used to perform a Ratchet search under the parsimony criterion using NONA of the WinClada package. Partitioned analyses on 'terminalia' and 'non-terminalia' datasets were compared with a total evidence analysis. Strategies of implied weighting of characters were explored too. All analyses were performed on a taxon sample including 58 exemplar species representing the four currently recognized subgenera of *Peckia* (*Euboettcheria, Peckia, Pattonella* and *Squamatodes*), and *Engelimyia inops*, *Oxysarcodexia intona*, *Peckiamyia minutipenis*, *Ravinia rufipes*, *Retrocitomyia retrocita,* and *Sarcodexia lambens* were used as outgroups. The mainly Neotropical genus *Peckia* is recognized as monophyletic with the exclusion of *Peckia adolenda* and the inclusion of *Sarcodexia lambens*. The subgenera of *Peckia* were grouped in two clades: one composed of *Pattonella* + *Squamatodes*, and the other of (*Sarcodexia* (*Peckia* + *Euboettcheria*)). Each subgenus emerged as monophyletic, and its synapomorphies were drawn from characters of both datasets. Characters of both terminalia and non-terminalia were informative at the generic and subgeneric levels, but overall terminalia provided higher support values. Our results highlight the fact that that the combination of external characters with character states of the terminalia provides greater phylogenetic resolution and higher branch support for the tree obtained with all characters, agreeing with the total evidence approach. Equally weighted and weighted analyses of total evidence provided the same relationships between the taxa studied, and although the tree from the weighted analysis had greater resolution at the species level, its support values were lower.

KEY WORDS: Diptera, *Sarcodexia*, genitalia, systematics